

WHAT IS CLAIMED IS:

1. An address translator comprising an interface
connected to a plurality of communication networks
including at least a first communication network connected
5 to a first host and a second communication network connected
to a second host and a table for translating addresses used
in said first communication network and addresses used in
said second communication network, wherein said translation
table contains discriminator to judge whether said address
10 is native address given to said first host or said second
host or not.
2. An address translator comprising:
an interface connected to a plurality of
communication networks including at least a first
15 communication network connected to a first host and
a second communication network connected to a second
host;
a memory storing address used in said first
communication network, address used in said second
20 communication network, and discriminator to judge
whether said address is the native address or not
of said first host or said second host; and
a controller for executing translation of the address
of said first communication network and said second
25 communication network.

3. The address translator according to claim 1, wherein the address translation rule of the address used in said first communication network and the address used in said second communication network and said discriminator are
5 recorded in said table when said address translation is executed.

4. The address translator according to claim 2, wherein said controller records, to said memory, said address translation rule of the address used in said first
10 communication network and the address used in said second communication network and said discriminator when said address translation is executed.

5. The address translator according to claim 1, comprising a memory for storing said table.

15 6. The address translator according to claim 3, comprising a means for receiving setting instructions for said address translation rule from said first host or said second host.

7. The address translator according to claim 4,
20 comprising a means for inputting said address translation rule and a means for receiving setting instructions of said address translation rule from said first host or said second host.

8. The address translator according to claim 1,
25 comprising a console unit which displays said table.

9. The address translator according to claim 2,
comprising a console unit which displays contents of said
memory.

10. A method for translating addresses comprising the
5 steps of:
receiving packets transmitted from a first host via
a first communication network;
translating said packets expressed with the protocol
of said first communication network into the protocol of a
10 second communication network connected with second hosts
generating an address translation rule for
translation of said protocol; and
registering discriminator for discriminating whether
the address of said protocol is actually granted to said
15 first host or said second host and said address translation
rule to the address translation table.

11. A method for translating addresses comprising the
steps of:
receiving packets transmitted from hosts via the
20 transmission source communication network; and
translating said packets expressed with the protocol
of said transmission source communication network to the
protocol of the transmission destination communication
network of said packets; wherein

said step of translating said protocol further comprising the steps of:

searching the address used in said transmission destination communication network by referring to said

5 address translation table; and

judging whether the transmission source address of said packet is actually granted to said host or not.

12. The method of translating addresses according to claim 11, further comprising a step of discarding said
10 received packet if the address of said received packet is not actually granted to said host.

13. The method for translating addresses according to claim 12, further comprising a step of notifying that said
received packet has been discarded to said transmission
15 source communication network.

14. The method for translating addresses according to claim 11, further comprising a step of assigning the address
used in said transmission destination communication network
if it is proved as a result of said search that the address
20 used in said transmission destination communication network
is not yet assigned to said host.

15. The method for translating addresses according to claim 14, further comprising the step of recording the
transmission source address of said packet, said assigned
25 address, and the discriminator suggesting that said

assigned address is a temporary address to said address translation table.

16. The method for translating addresses according to claim 15, wherein the newly received packet is discarded
5 when the packet having said assigned temporary address which is set as the destination address through said translation of protocol is newly received.

17. The method for translating addresses according to claim 11, said translation of protocol is executed in the
10 timing that setting instructions of address translation rule from said host are generated.

18. The method for translating addresses according to claim 14, comprising the steps of:

receiving a request inquiring said destination
15 address used in the transmission destination communication network from said transmission source communication network by designating the name of destination of the packet;

transferring said inquiry request to a server storing the corresponding relationship between said address and
20 name; and

receiving a response to said inquiry request from said server; whereby

said temporary address is assigned, upon reception of said response from said server.

19. The method for translating addresses according to claim 18, further comprising a step of registering the discriminator suggesting that said assigned address is the temporary address to said address translation table.

5 20. The method for translating addresses according to claim 15, wherein occurrence of fault is notified to said transmission source and transmission destination communication network when the address corresponding to the discriminator suggesting said temporary address is the
10 native address of the host registered to said transmission source communication network or said transmission destination communication network.

21. The method for translating addresses according to claim 18, wherein occurrence of a fault is notified to said
15 transmission source communication network when the discriminator suggesting that the address notified with the response from said server is the temporary address is registered.